

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Christophe MALEVILLE et al.

Application No:

Group Art Unit:

Filing Date:

Examiner:

For: METHOD FOR EVALUATING PARTICLE  
CONCENTRATIONS IN A CLEAN ROOM OR  
MACHINE MINI-ENVIRONMENT

Atty. Docket No.: 4717-6600

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Pursuant to applicants' duty of disclosure under 37 C.F.R. 1.56, enclosed is a PTO form 1449 which lists ( 3 ) cited references for the Examiner's review and consideration. These references were cited in the European Search Report, a copy of which is enclosed.

Pursuant to the recent rule change in the Official Gazette, copies of the U.S. references are not submitted. It is respectfully requested that these references be made of record in this application by the Examiner's completion and return of the PTO Form 1449.

No fee or certification is believed to be due for this submission since the references are being submitted concurrent with the filing of this application. Should any fees be required, however, please charge such fees to **Winston & Strawn** Deposit Account No. 501-814.

Respectfully submitted,

Date: \_\_\_\_\_

9-16-03



Allan A. Fanucci

(Reg. No. 30,256)

**WINSTON & STRAWN**  
**CUSTOMER NO. 28765**  
(212) 294-3311

Enclosures

<b>LIST OF REFERENCES CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>					ATTY. DOCKET NO.:		APPLICATION SERIAL NO.:	
					4717-6600			
					APPLICANT:			
					Christophe MALEVILLE			
					FILING DATE:		GROUP:	
<b>U.S. PATENT DOCUMENTS</b>								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	AA	3,526,461	9/1970	Bo Oscar Lindahal et al.	356	38		
	AB	4,725,294	2/1988	Berger	55	270		
	AC	5,804,494	9/1998	Mitani et al.	438	455		
	AD							
<b>FOREIGN PATENT DOCUMENTS</b>								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AE							
	AF							
	AG							
	AH							
	AI							
	AJ							
	AK							
	AL							
<b>OTHER REFERENCES</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>								
	AM							
	AN							
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>			
<b>*EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with <b>MPEP 609</b> ; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



P.B.5818 - Patentlaan 2  
2280 HV Rijswijk (ZH)  
☎ +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

Europäisches  
Patentamt

Zweigstelle  
in Den Haag  
Recherchen-  
abteilung

European  
Patent Office

Branch at  
The Hague  
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des brevets

Département à  
La Haye  
Division de la  
recherche

Grünecker, Kinkeldey,  
Stockmair & Schwanhäusser  
Anwaltssozietät  
Maximilianstrasse 58  
80538 München  
ALLEMAGNE

GRÜNECKER, KINKELDEY, STOCKMAIR  
& SCHWANHÄUSSER  
ANWALTSSOZietät

22. April 2003

FRIST  
TERM

EINGANG - RECEIVED

Datum/Date

22.04.03

Zeichen/Ref./Réf. EP24240-05148/j	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°. 02292518.4-2204-
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire S.O.I. Tec Silicon on Insulator Technologies S.A.	

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☐ abstract

☐ title

☒ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

1

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 3 526 461 A (LAMME VALENTIN ET AL) 1 September 1970 (1970-09-01) * column 1, lines 24-33; column 2, lines 5-19; column 4, lines 9-17 and lines 31-51 * ---	1,2,14, 15,19	G01N15/06 G01N1/22
A	US 4 725 294 A (BERGER JOSEF) 16 February 1988 (1988-02-16) * column 1, lines 25-27; column 2, lines 38-39; column 3, lines 1-12 * ---	1	
X	US 5 804 494 A (KATAYAMA MASATAKE ET AL) 8 September 1998 (1998-09-08)  * column 2, lines 21-26; column 2, line 44 - column 3, line 11; figure 10 * -----	1-5, 9-12, 14-22	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G01N
Place of search		Date of completion of the search	Examiner
MUNICH		4 April 2003	Hoogen, R
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document  T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons  &: member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 29 2518

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-04-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 3526461	A	01-09-1970	SE	315760 B	06-10-1969
			AT	292342 B	25-08-1971
			CH	450011 A	15-01-1968
			DE	1623087 A1	17-02-1972
			FR	1524475 A	10-05-1968
			GB	1145657 A	19-03-1969
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US 4725294	A	16-02-1988	NONE		
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US 5804494	A	08-09-1998	JP	2723787 B2	09-03-1998
			JP	7058303 A	03-03-1995
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## ABSTRACT / ZUSAMMENFASSUNG / ABREGE

02292518.4

A method of evaluating a particle concentration, in particular of boron or phosphor, in an atmosphere of a clean room comprises the steps of exposing a test surface (2) of a test substrate (1), e.g. a Si-wafer, to said atmosphere (7) for a test time (step b'); catching and conserving a particle amount at the test substrate (1) at the end of said test time; analysing the particle amount, preferably by means of Secondary Ion Mass Spectroscopy SIMS (step g); and comparing the analysed particle amount with a particle amount analysed on a reference substrate (3) (step h). The particle amount at the test substrate (1) may be caught and conserved by bonding another test wafer (5) to the test surface (2) to form a bonded test wafer pair (step c) and by subsequent annealing (step d). The reference substrate (3) preferably undergoes the same treatment (step b). The test and reference substrates may initially be cleaned (step a). Prior to analysing the particle amount the bonded test wafer pair and the reference wafer pair may be separated (steps e and f).